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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,447	02/22/2007	Reijo Pekkala	P18714-US1	9831

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EXAMINER	
CHAI, LONGBIT	

ART UNIT	PAPER NUMBER
2431	

NOTIFICATION DATE	DELIVERY MODE
11/30/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/595,447	PEKKALA ET AL.	
	Examiner	Art Unit	
	LONGBIT CHAI	2431	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 October 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on *20 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Currently pending claims are 1 – 10.

Response to Arguments

2. Applicant's arguments with respect to the subject matter of the instant claims have been fully considered but are not persuasive.

3. As per claim 1, Applicant asserts the prior-art does not teach "to receive a mobile application part message from the first domain, to convert the received mobile application part message obtaining a secured mobile application part message" because the cited portion does not indicate anything about how secure GSM MAP messages are (Remarks: Page 7 / 2nd Para). Examiner respectfully disagrees because:

- Applicant's argument has no merit since the alleged limitation regarding exactly *"which part of the secured function / element and to what extent (or how secure) it is"* has not been recited into the claim. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993) and

- on the other hand, the GSM is a truly secured protocol standard to be adopted for the wireless air-interface in many reasons such as (i) each mobile station must be assigned a Temporary Mobile Subscriber Identity (TMSI) by a network entity, instead of transmitting the real identity (e.g., the IMSI) of the mobile station over the air-interface and (ii) a ciphering key must be used to ensure a strong symmetric encryption for exchanging the messages between sender and receiver entities after being authenticated and as such Applicant's arguments are respectfully traversed.

4. Likewise regarding Applicant's further argument "to extract an unsecured mobile application part message from the received secured mobile application part message" (Remarks: Page 7 / 2nd Para). Examiner notes the decryption of the message is indeed extracting an unsecured (or clear) mobile application part message from the received secured (or encrypted) mobile application part message according to the ciphering algorithm agreed by both entities.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over (3GPP TS 33.200 V5.0.0 Release 5 March 2002) hereafter referred as "3GPP-TS-33-200", and in view of Loganathan et al. (U.S. Patent 7,536,183).

As per claim 1 and 6, 3GPP-TS-33-200 teaches a telecommunication network having at least a gateway node, with a first domain comprising:

a mobile application part protocol instance connected to the gateway node (3GPP-TS-33-200: Figure 1's Z_f-interface and Page 8 Line 6 – 10 and **see *Loganathan* below) configured to send and receive mobile application part messages in accordance with the 3rd Generation Partnership Project (3GPP) Technical Specification (TS) 33.200** (3GPP-TS-33-200: Section 4 and Section 5.5).

3GPP-TS-33-200 teaches providing an interface (i.e. NE-NE Z_f-interface) between two MAP network entities (NE) located at two different domains (3GPP-TS-33-200: Figure 1's Z_f-interface and Page 8 Line 6 – 10). However, 3GPP-TS-33-200 does not disclose expressly a MAP protocol gateway node.

Loganathan teaches **providing a MAP protocol gateway node** (Loganathan: Figure 1 / Element 114 and Column 1 Line 39 – 50: Loganathan identifies the interworking problem in Mobile Application Part (MAP) that makes it difficult for mobile communications service providers to use more than one technology in their networks and provides an Inter Technology Bridge (ITB) (i.e. as a MAP protocol Gateway) to interface messages between these disparate MAP protocols.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Loganathan within the system of 3GPP-TS-33-200 because (a) 3GPP-TS-33-200 teaches the MAP network entities (NE) between two different domains can be managed by a NE-NE Z_f-interface which applies to all MAPsec inter-PLMN transactions (3GPP-TS-33-200: Figure 1's Z_f-interface and Page 8 Line 6 – 10) and (b) Loganathan identifies the interworking problem in Mobile Application Part (MAP) that makes it difficult for mobile communications service providers to use more than one technology in their networks and provides an Inter Technology Bridge (ITB) (i.e. as a MAP protocol Gateway) to interface messages between these disparate MAP protocols (Loganathan: Figure 1 / Element 114 and Column 1 Line 39 – 50).

the gateway node being connected to a second domain, wherein the gateway node is configured to receive a mobile application part message from the first domain, to convert the received mobile application part message obtaining a secured mobile application part message, and to send the obtained message to

the second domain (Loganathan: Figure 1 / Element 114 & Column 4 Line 49 – 57 and Column 1 Line 39 – 50: (a) translating / converting a TIA-41 MAP message to a secured GSM MAP message, wherein (b) the GSM is a truly secured protocol standard to be adopted for the wireless air-interface in many reasons such as (i) each mobile station must be assigned a Temporary Mobile Subscriber Identity (TMSI) by a network entity, instead of transmitting the real identity (e.g., the IMSI) of the mobile station over the air-interface and (ii) a ciphering key must be used to ensure a strong symmetric encryption for exchanging the messages between sender and receiver entities after being authenticated), **the gateway node further being configured to receive a secured mobile application part message from the second domain, to extract an unsecured mobile application part message from the received secured mobile application part message and to send the extracted message towards the first domain** (Loganathan: Figure 1 / Element 114 & Column 4 Line 49 – 57 and Column 1 Line 39 – 50: accordingly, the decryption of the message is indeed extracting an unsecured (or clear) mobile application part message from the received secured (or encrypted) mobile application part message according to the ciphering algorithm agreed by both entities).

As per claim 2 and 7, 3GPP-TS-33-200 as modified teaches the gateway node performs a selective discarding of mobile application part messages received from the first domain and destined for the third domain and a selective discarding of mobile application part messages received from the third and destined for the first domain (3GPP-TS-33-200: Page 20 / Figure 1 & Item# 1(c) and Page 22 / 1st – 2nd Para: the MAP message is aborted / discarded for communications as security required) & (Loganathan: Figure 1 / Element 114 & Column 4 Line 49 – 57 and Column 1 Line 39 – 50).

As per claim 3 and 8, 3GPP-TS-33-200 as modified teaches the gateway node performs as a firewall towards the third domain (3GPP-TS-33-200: Page 20 / Figure 1 & Item# 1(c) and Page 22 / 1st – 2nd Para: a gateway network entity to abort / discard the message as security required is indeed qualified as a firewall between domains) & (Loganathan: Figure 1 / Element 114 & Column 4 Line 49 – 57 and Column 1 Line 39 – 50).

As per claim 4 and 9, 3GPP-TS-33-200 as modified teaches the gateway node is connected to different domains, and levels of security are configurable for the different domains (3GPP-TS-33-200: Page 6 / Line 9 –11, Page 11 / Section 5.5: MAPsec inter-domain security management by a gateway network entity between two PLMNs using different configurable security modes) & (Loganathan: Figure 1 / Element 114 & Column 4 Line 49 – 57 and Column 1 Line 39 – 50).

As per claim 5 and 10, 3GPP-TS-33-200 as modified teaches for a particular domain a fallback to a lower level of security than the configured level of security for the particular domain is allowable and allowing the fallback to the lower level of security is configurable for one domain independently from a configuring of an allowing of a respective fallback to a lower level of security level for another domain (3GPP-TS-33-200: Page 9 Line 7 – 9, Section 5.3 / 3rd Para and Page 22 / 1st Para). As per claim 2 and 7, 3GPP-TS-33-200 teaches the gateway node performs a selective discarding of mobile application part messages received from the first domain and destined for the third domain and a selective discarding of mobile application part messages received from the third and destined for the first domain (3GPP-TS-33-200: Page 20 / Figure 1 &

Item# 1(c) and Page 22 / 1st – 2nd Para: the MAP message is aborted / discarded for communications as security required) & (Loganathan: Figure 1 / Element 114 & Column 4 Line 49 – 57 and Column 1 Line 39 – 50).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LONGBIT CHAI whose telephone number is (571)272-3788. The examiner can normally be reached on Monday-Friday 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Longbit Chai/

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Primary Examiner, Art Unit 2431
11/1/2010
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